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SUBDIVISION REVIEW GUIDE



PREPARED BY

URBAN EROSION TASK FORCE

William W. Fuller - Chairman

John D. Allen - Member

Leroy W. Hacker - Member

Gene H. Kamerzell - Member

Daniel Murray - Member

Clifford E. Sanchez - Member

SOIL CONSERVATION SERVICE

SEPTEMBER 1989

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FOREWORD

The New Mexico Subdivision Act, Chapter 348 of the Laws of 1973, 31st Legislature, First Session, the Legislature of the State of New Mexico, as amended, requires the counties of New Mexico to establish subdivision regulations.

In making a determination as to whether or not a subdivider can fulfill the proposals contained in his disclosure statement and whether or not the subdivision plans conform to the County Regulations and the Act, the County Board of Commissioners must request opinions from:

1. State Engineer - in relation to available water for the subdivision.
2. Environmental Improvement Agency - in relation to water quality and liquid and solid waste.
3. State Highway Department - in relation to state highway access.
4. Soil and Water Conservation District - in relation to terrain management.

As the primary technical advisor to SWCD's, the Soil Conservation Service will be called upon to assist the SWCD's fulfill their responsibilities in reviewing and commenting on subdivision plans, particularly in relation to terrain management.

These guidelines are intended to provide SCS personnel with information and procedures that will result in meaningful review and comments compatible with the intent of the Act and the county regulations. The guidelines reflect the contents of the Model Subdivision Regulations prepared by the New Mexico Association of Counties and the Natural Resources Conservation Commission, all of which may not be contained in a particular county's regulations.

These guidelines were developed to provide guidance to SCS employees in assisting Soil and Water Conservation Districts. The booklet was not intended for general public distribution. However, it could be of major assistance to County or City Zoning Commissions, City Planners, and Developers. These groups could use the information in the booklet and during the planning process to see that at least the terrain management aspects of their regulations, ordinances, or development have been covered. The check lists provide a quick easy way for a developer to see if everything has been covered before presenting the plan to

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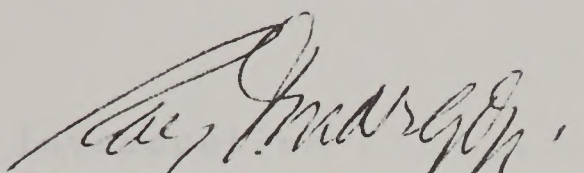
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the County Commission for the first time. If Developers were aware of the items in their plan which would be checked, they would address them during planning rather than after receiving adverse comments from the County Commission. This should save time, and money, for everyone involved in the planning or review process.


Ray T. Margo, Jr.
State Conservationist

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Ray H. Hays, Jr.
State Commissioner

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INTRODUCTION

The SWCD's review responsibility lies primarily in that part of the subdivision plan that deals with terrain management.

Opinion is to be rendered on two separate issues - conformance with County Regulations and the Act, and whether or not the subdivider can fulfill the proposals contained in the disclosure statement. The latter issue is related to technical or physical resources - not financial.

It is possible that adverse opinion might be rendered on one issue and not the other. For example, the specific proposed uses of the land and erosion control plans may meet requirements of the County Regulations, but no provisions have been made for a recreation area which was proposed in the disclosure statement. It also may be possible for a subdivision plan to conform to the County Regulations but not to the State Act.

Personnel assisting the SWCD's in the review must keep in mind that the county commission is asking the SWCD for comments, not the SCS. Therefore, comments are to be made by the District. Data furnished by the SCS to the SWCD must be factual and specific. With the proper training, SWCD supervisors, or other district employees, should eventually be able to make the same kind of review with only limited SCS input.

It should be understood that the land developer is responsible for furnishing all the information required by the County Regulations and the Act. At times, the SCS may be able to provide, or to help, the developer obtain much of the needed resource data. Commitment of significant amounts of SCS time to assist land developers develop terrain management plans must be cleared with the Area Conservationist and the SWCD. Remember, if assistance is provided to a developer, **do not design the plan. Provide alternatives, ideas, standard drawings or rough sketches so that the final plan is a product of the developer or consultant, not the SCS.**

If it is found that basic data needed for the review is inadequate, the SWCD board should request the county commissioners to secure the information from the subdivider.

This process ensures that the County is kept up to date on all items, and that the County has a file copy of all these records, **which it must have**. If the County is bypassed because the District works directly with the developer, the process breaks down, and if problems result later and the County records are incomplete, the District will be at fault. This procedure also prevents the developer from telling the District one thing and the County another. Much of the review can be done in the office. However, **it is imperative that the subdivision be viewed in the field**. Often the written material in the plan does not agree with what is actually on the ground. Also, while on site, a quick check can be made to determine that the soil survey accurately portrays the soils in the area.

It is expected that Area or State Office staff will be asked for assistance when it is needed at the local level. **Area and State Office staffs must be able to respond to requests within the review period established by State and County regulations.**

Policies, procedures, or criteria contained in handbooks or other references must be strictly followed in order to prevent legal problems. A list of these references is found in Appendix 1 of this guide.

HOW TO USE THIS GUIDE

General

This is primarily a procedural guide; therefore, it does not contain technical material that will be needed in reviewing subdivision plans. Technical material is contained in other references. These are cited throughout the guide.

The Reviewer must have a copy of the County Regulations which will be used to determine the adequacy of the subdivision plans. The County Regulations, or the Model Subdivision Regulations mentioned in the Foreword, will also contain a list of definitions for the various terms used in the subdivision plan. The Model will also provide an explanation of the terrain management elements of subdivision plans. The District specifications will also be used in the review.

Elements of Terrain Management Plans

This guide contains information related to seven basic categories, or elements, to be reviewed.

1. Soils
2. Grading
3. Flood Plain Management
4. Storm Drainage
5. Roads
6. Erosion Control
7. Revegetation or Landscaping

Under each element there are listed the essential features which should be included in the plan and a description of how these features should be planned.

This guide contains all the elements and features found in the Model County Regulations. The actual county regulations may not contain all of these, or they may contain additional elements. Only the applicable elements should be considered.

If the terrain management plan does not contain sufficient information on particular features to permit a meaningful opinion, this should be noted and the county commissioners should be notified to obtain the needed information from the developer.

ELEMENTS AND FEATURES TO BE REVIEWED

The County Subdivision Regulations will contain a list of maps, overlays, and other data that should be included in a subdivision plan. These should be checked for the required scale and content clarity.

In addition, the following elements and features are to be reviewed and deficiencies noted. All of these may or may not be applicable in a particular county.

1. SOILS

SCS Single Phase Interpretation Sheets or computer generated soils tables are available for many of the soils in the state. Where available, these interpretations may be used in reviewing terrain management plans. If the Interpretation Sheets or tables are not available in the field office, a copy may be obtained in the Soils Section at the SCS State Office. In many areas, a published soil survey will provide information which can be used in the review. A

soils database will be available in the field office under the CAMPS program. After this database is installed, adequate soils information should be readily available.

Where the above references are not adequate, the "Guide for Interpreting Engineering Uses of Soils", USDA-SCS, should be used in reviewing the soils portion of the terrain management plan of subdivisions. In this reference, the principal detrimental or unfavorable features of the soils are listed. The three major limitations and their definitions are:

Slight - soil limitation, or Good suitability, is the rating given soils that have properties favorable for the intended use. The degree of limitation is minor and can be overcome easily. Good performance and low maintenance can be expected.

Moderate - soil limitation, or Fair suitability, is the rating given soils that have properties moderately favorable for the intended use. This degree of limitation can be overcome or modified by special planning, design, or maintenance. During some part of the year the performance of the structure or other planned use is somewhat less desirable than for soils rated Slight. Some soils rated Moderate require treatment such as artificial drainage, runoff control to reduce erosion, extra excavation, or some modification of certain features through manipulation of the soil. Modification may include special foundations, extra reinforcement of structures, sump pumps, and the like.

Severe - soil limitation, or Poor suitability, is the rating given soils that have one or more properties unfavorable for the rated use; such as steep slopes, bedrock near the surface, flooding hazard, high shrink-swell potential, a seasonal high water table, or low bearing strength. This degree of limitation generally requires major soil reclamation, special designs, or intensive maintenance. However, some of these soils can be improved by reducing or removing the soil feature that limits use. In most situations, it is difficult, and usually very expensive, to alter the soil, or to design a structure, so that it can be placed on a soil with a severe limitation.

Soils having severe limitations, or which are shown as unsuitable, for the intended purpose should not be used for the purpose unless the developer has clearly shown in the plan how these limitations will be overcome.

Other ratings are used to describe soils as sources for roadfill, sand, gravel, and soil construction material for drastically disturbed areas. Suitability ratings of Good, Fair or Poor are given for soils used as a source of roadfill and topsoil. Ratings of Probable and Improbable

are given for sand and gravel. Quality of the material is not considered in these ratings since quality depends on the use intended for the material.

Probable - means that sand or gravel is likely to be in or below the soil.

Improbable - means that sand or gravel is unlikely to be in or below the soil.

Below are the major categories used in reviewing the terrain management plan of a subdivision:

- A. Building Site Development
- B. Construction Material
- C. Local Roads and Streets
- D. Underground Utilities
- E. Water Control Structures
- F. Erosion Control Structures

The information needed for evaluating each of these categories is obtained from either the Single Phase Interpretation Sheets or the computer generated soils tables.

A. Building Site Development

Soil limitation ratings for shallow excavations, dwellings, and small commercial buildings are considered under this category.

B. Construction Materials

Soil suitability ratings for road fill or other construction are checked.

C. Road Location

Soil limitation ratings for local roads and streets fall under this category.

D. Underground Utilities

Soil limitation ratings for shallow excavations are checked in this category. Notice that corrosivity and shrink-swell are also considered in evaluating underground utilities.

E. Water Control Structures

Characteristics of soil materials for compacted embankments including background information for general guidance for soil features is also considered. Notice that these evaluations are based on soils used in constructing earth fills intended for holding back water - embankments, dikes, and levees.

F. Erosion Control Structures - Terraces and Diversions

Soil features that affect use of soils for erosion control structures are also considered. They include features that affect stability, layout, and construction of structures; establishment and maintenance of vegetative cover; and sedimentation of channels.

2. GRADING

Land grading, filling, and clearing operations can cause many problems when performed incorrectly; such as when large areas are left open to wind or water erosion. Grading should not proceed beyond actual development needs. Topsoil should be replaced to aid in revegetation of construction sites. Operations should be planned and designed to enhance natural scenic beauty of the area. Special erosion control measures are usually necessary in sandy soils.

In addition to conforming to soil suitabilities as set out in Section 1, Soils, grading, filling, and clearing operations, including road development, shall be designed to fulfill the following requirements:

- A. Preserve, match or blend with the natural contours of the land.
 1. Does the plan adequately describe how grading operations will be performed to blend slopes and fills into the natural contours of the land?
 2. Does the plan retain or replace trees and other native vegetation, to stabilize hillsides, retain moisture, reduce erosion, reduce runoff, and preserve the natural scenic beauty?
 3. Have cuts and fills been designed to minimize the area of exposure and reduce the sharp angles at the toe and sides?
 4. Does the plan prevent the deposit of sediment into floodplains, drainage channels, watercourses, and water bodies?
- B. The following discharges attributable to grading are prohibited whether the discharge is direct or indirect:
 1. Sediment and other organic or earthen materials discharged into a watercourse, water body, drainage channel or floodplain.
 2. Material placed in any position which would make it susceptible to erosion and deposition into a water-

course, water body, drainage channel or floodplain.

- a. Does the plan for grading, land forming, and protective cover provide for the prevention of soil sedimentation?
 - b. Does the plan call for temporary or permanent structural measures to prevent damaging runoff waters from originating on the slope itself?
 - c. Do planned structural measures adequately provide for the limitations of the site?
- C. Whenever the native ground cover is removed or disturbed, or whenever fill material is placed on site, does the plan call for the exposed surface to be treated to the extent necessary to prevent dust from blowing off the construction site?
- D. Does the work schedule for the grading and filling operations limit the soil to the shortest possible exposure period before cover is established?
- E. What provisions are made for disposal of vegetation during clearing operations?
- F. What is the disposition of earth removed during grading operations?
- G. Are the maximum cut and fill slopes compatible with soil stability or erodibility as shown on the soil survey and/or county regulations?
- H. What provisions were made to prevent runoff from flowing over the face of the slope?
- I. Are mechanical stabilization measures planned for slope containment?
1. Do these structures blend with the landscape?
 2. Are they at least partially screened by vegetation?
 3. If structures don't blend in, is landscaping planned?
- J. If a borrow area is shown, is revegetation planned for the disturbed area?
- K. If arroyos or other overfall areas are in the planning area, are rundowns to a safe outlet planned?
- L. Are provisions made for water and erosion control in borrow ditches along streets and roads?

- M. Are there any rare, endangered, or threatened species on the site or in the affected area? If any are present, what actions are planned for protection or mitigation?

3. FLOOD PLAIN MANAGEMENT

Subdivisions and developments shall be planned, constructed, and maintained so that:

- A. Dwellings are not located within the 100-year floodplain.
- B. Structures, material deposits, or excavations, alone or in combination with present or future works, do not adversely affect the capacity of the floodplain.
- C. Roads are not located in the floodplain unless specifically approved by the State Highway Department and the road does not conflict with B above.
- D. Structures with the potential for high flood damage, and confined animal shelters, are not located in the floodplain.
- E. Existing utilities, and proposed utilities, will be free from the threat of flood damage.

The SCS Technical Release 55 (TR-55), "Urban Hydrology for Small Watersheds," should be used in evaluating flood problems. An estimate of the design rate of flow is necessary to determine channel capacity and size. In using the procedures, due consideration should be given to future developments in the watershed. **The use of curve numbers below 80 may be adequate for rangeland but could result in too low a runoff figure for subdivisions.** High density business and shopping areas commonly have curve numbers of 90 or greater. The time of concentration should be carefully analyzed. A long time of concentration materially reduces the estimated peak flows in comparison to a short time of concentration. **TR-55 is a more accurate method of computing flood flows than is the procedure found in Chapter 2 of the SCS Engineering Field Manual.** Although Chapter 2 can be used in some instances, since TR-55 provides more accurate results it should be used in most cases.

Flood line elevations and locations are of primary importance. **It is imperative that the 100-year flood line locations be shown on the plan.** The SCS is not responsible for providing boundaries of the 100-year flood lines on subdivision plans. **This is the responsibility of the developer,** who in turn, is required by law to employ the services of a Registered Professional Engineer to provide this information.

Damage from flooding is a function of flow depths and velocity. In appraising the flood damage potential, the magnitude and locations of velocities should be considered. Erosion and sediment deposition are good indicators of damage that has occurred in the past.

Areas of potential flooding are identified in soil limitations. While these are not usually accurate enough to identify the 100-year zone, they will help indicate areas of needed study. Review these areas carefully before commenting. Reasons for all limitations should be given, including discussion of the possible effects on the subdivision.

Review comments to the SWCD should include statements regarding:

1. Adequacy of flood channels.
2. Potential flood hazards (location, depth, and velocity of flow).
3. The ability of flood waters to move through the flood channels without being obstructed.
4. The need for flood-proofing of wells or septic systems. Due to the possibility of water pollution, plans involving evapo-transpiration septic systems should be carefully evaluated. It has been found that these types of systems are nearly always under designed.

4. STORM DRAINAGE - DRAINAGE PLAN

Subdivisions and developments shall be planned, constructed and maintained to:

1. Protect and preserve existing natural drainage channels except where erosion and water control measures are approved by the commission.
2. Provide temporary measures to prevent damaging runoff waters from leaving the site until construction is completed and permanent control measures are installed.
3. Protect structures and other works from flood hazards using the 100-year frequency storm for calculating flood levels.

4. Provide a system wherein runoff water within the subdivision is removed without causing harm or damage to the environment, property, or persons, inside or outside the subdivision area.
5. Assure that water drained from the subdivision does not contain pollutants or sedimentary materials of any greater quantity than would occur in the absence of the subdivision.
6. Assure that waters are drained from the subdivision in such a manner that they will not cause erosion outside of the subdivision to any greater extent than would occur in the absence of the subdivision.

All storm drainage systems shall be constructed in accordance with standards of the local district, where applicable. If the drainage basin wherein the subdivision is located is only partially developed, the county regulations may require that the design and construction of the drainage system have sufficient inlet flow capacities and inlet flowline elevations to adequately serve the entire drainage basin. This is based on the assumption that eventually the entire basin will be developed.

Development of an area is almost certain to cause increased runoff and sediment. The possible adverse effects of such an increase should be analyzed. Special consideration should be given to existing or planned bridge sizes and the stability and capacity of existing or planned water courses. It should be recognized that stable water courses may start to degrade when exposed to larger and more frequent flows resulting from the development.

Diversions, debris basins, retaining walls, terraces, berms, and vegetation should be used as needed to reduce sediment and runoff.

Regrading and shaping of large natural channels usually increases the channel velocity which results in increased erosion unless measures are taken to slow velocities and protect the banks.

Excavated slopes should generally be 3:1 or flatter.

Comments to the SWCD should include statements regarding:

1. Capacity of storm drains.
2. Channel stability within, and downstream from, the subdivision.
3. Stability of side inlets coming into waterways.

4. Adequacy of sediment control measures during and after construction to insure that water quality is maintained at a level equal to that before the subdivision was constructed.

5. Projections of Pre and Post-development runoff.

5. ROADS

In addition to conforming to soil suitabilities as set out in Section 1, Soils, and to requirements set out in Section 2, Grading, roads shall be located and designed to:

- A. Preserve natural features, vegetation, and topography and to protect the natural environment.

1. Does the plan adequately describe where, what, and how the natural vegetation will be removed?
2. Does it appear that alignments are compatible with natural contours?
3. Are there any unique or valuable esthetic resources that will be destroyed?

- B. Create conditions to ensure proper drainage.

1. Will there be any water ponding areas as a result of road construction?
2. Are roads planned to be used in collecting or disposing of runoff? If so, are they adequately designed?
3. Do road drains outlet into an existing drainage-way?
4. Do road drains outlet into a controlled area?
5. Are road culverts properly sized and located and of adequate length?
6. Are road culvert inlets and outlets adequately protected?

NOTE: SWCD's will only comment on the above items. Comments on the adequacy of the road and street system is under the responsibility of another agency.

6. EROSION CONTROL

The plan should clearly indicate that installed measures will prevent or control erosion. As a minimum the following items should be considered:

- A. Are designed road grades flat enough to prevent erosion, based on the soils involved?
- B. Are borrow areas or drainage features designed to prevent erosion or sediment deposition?
- C. Are culvert inlets and outlets properly protected from erosion and sedimentation?
- D. Will critical area treatment or special plantings be needed? If so, are the plans adequate?
- E. Will temporary soil stabilization be needed? If so, is it adequately planned?
- F. Is adequate soil stabilization planned on permanent slopes?

7. LANDSCAPING AND REVEGETATION

Revegetation is an important part of any subdivision plan. A definite time schedule for installing plant cover is necessary to prevent erosion, particularly in areas with sandy soils. The need for revegetation is an integral part of several of the other sections. The following items should be considered when reviewing the vegetation portion of the subdivision plan:

- A. Are species scheduled for planting adapted to the soils and the local climate? The following publications can be used to check the adaptability of plants:
 1. Plant Materials for Use on Surface-Mined Lands in Arid and Semiarid Regions. SCS-TP-157.
 2. Ecology and Culture of Selected Species Useful in Revegetating Disturbed Lands in the West. FWS/OBS-82/56. (Each Field Office has a copy).
 3. The Plant Guides, which should be filed in the back of the SCS National Plant Materials Handbook.

- B. Do planting dates shown in the plan agree with the dates in the Tech Guide?
- C. Do seeding rates shown in the plan meet the minimums in the Tech Guide?
- D. Are seeding or planting methods compatible with the Tech Guide?
- E. Has existing vegetation been left undisturbed whenever possible?

PREPARATION OF REPORT

A report of SCS review findings will be made in writing to the SWCD supervisors. No standard format is proposed, however a copy will be retained in the field office files.

SWCD's should review SCS's report, add their own technical comments as needed, and forward the report to the county commission with a separate letter of transmittal from the SWCD.

Reports must be factual and objective. Interpretations and projections of cause-effect relationships must be based on sound technical information.

Avoid the uses of technical terms and use laymen's language wherever possible. Do not use such terms as "Severe Limitations", but simply describe the particular soil characteristic and what will happen if the land is used for that purpose.

Where the soil limitations preclude the planned use, the report should make this fact clear. A description of the condition which makes the land unsuitable should be included. If the soil conditions can be overcome through special designs or treatment, this should be pointed out and the design or treatment should be described. **The report should recommend that the developer furnish detailed data to either show that the particular soil condition does NOT exist, or to show how the designs or treatment will overcome the adverse condition.**

The report should state the date it was received by the SWCD and also if a Field Review was done and the date.

The report should be divided into two sections:

1. Conformance to County Regulations
2. Disclosure Statement Proposals

The final report to the County Commission should end with a disclaimer statement similar to the following:

"The proceeding review and opinions on the Terrain Management Plan for the proposed (Name of Subdivision or Project) were made in response to the request by the _____ County Commission as provided for by agreement and the New Mexico Subdivision Act. The review comments and opinions are only such and are not in any way an endorsement or recommendation of the proposed subdivision by the _____ Soil and Water Conservation District."

APPENDIX I

SOURCES OF INFORMATION RELATING TO SUBDIVISIONS

Individual County Subdivision Regulations

Subdividing Land in New Mexico, Second Edition, by State of New Mexico, Office of the Attorney General, July 1984 with latest amendments.

National Soils Handbook, Part 603 - Application of Soil Information

Published Soil Surveys and SCS Soil Interpretation Sheets

Engineering Technical Release 55 - Urban Hydrology (TR-55)

Peak Rates of Discharge for Small Watersheds-Chapter 2 SCS Engineering Field Manual

Technical Release 20 (TR-20) - Computer Program for Project Formulation - Hydrology

SCS National Engineering Handbook - Section 4 - Hydrology

Field Office Technical Guides

National Conservation Planning Manual

National Plant Materials Handbook

National Agronomy Manual

Title 450 - Technical Development Application of the General Manual Part 408 - Technical Assistance in Urban Areas

APPENDIX 2

SUGGESTED CHECK SHEET

Name of Subdivision_____

Name of Developer_____

Date Plan Received by SWCD_____

Date of Field Review_____Conducted by_____

TERRAIN MANAGEMENT PLAN

1. _____ Does the Plan meet County and State regulations?
2. _____ Can the proposals in the terrain management plan be satisfied?
3. _____ Is the subdivision map drawn to a scale of not more than 200 feet to one inch?
4. _____ Does the map show the location of all proposed lots, roads, bridges, and water and erosion control structures?
5. _____ Is there a general road development schedule showing when and where roads will be installed?
6. _____ Have complete soil descriptions and soil maps been provided?
7. _____ Are soils suitable for the use shown on the plan, especially if septic systems are planned?
8. _____ If soils have Moderate or Severe limitations, does the plan show how these limitations will be overcome?
9. _____ Does the plan adequately describe how grading operations will be performed to blend slopes and fills into the natural contours of the land?
10. _____ Does the plan retain or replace trees and other native vegetation, to stabilize hillsides, retain moisture, reduce erosion, reduce runoff, and preserve the natural scenic beauty?
11. _____ Have cuts and fills been designed to minimize the area of exposure and reduce the sharp angles at the toe and sides?

12. ----- Does the plan prevent the deposit of sediment into floodplains, drainage channels, water-courses, and water bodies?
13. ----- Does the plan for grading, land forming, and protective cover provide for the prevention of soil sedimentation?
14. ----- Does the plan call for temporary or permanent structural measures to prevent damaging runoff waters from originating on the slope itself?
15. ----- Do planned structural measures adequately provide for the limitations of the site?
16. ----- When the plan results in bare ground, does it provide for the necessary treatment to prevent dust from blowing off the construction site?
17. ----- Does the work schedule provide for the shortest possible soil exposure period?
18. ----- Does the plan provide for the proper disposal of vegetation removed during clearing?
19. ----- Does the plan provide for a safe disposal of soil removed during grading operations?
20. ----- Have provisions been made to prevent runoff from flowing over the face of slopes?
21. ----- Do mechanical stabilization measures planned for slope containment blend with the landscape?
22. ----- Are these measures at least partially screened by vegetation?
23. ----- Is revegetation planned for borrow or other disturbed areas?
24. ----- Are rundowns to a safe outlet planned where arroyos or other overfall areas are present?
25. ----- Are provisions made for water and erosion control in borrow ditches along streets and roads?
26. ----- Are there any rare, endangered, or threatened species on the site or in the affected area?
27. ----- If needed, are mitigation measures planned?
28. ----- Are buildings located in the 100-year floodplain?

29. ----- Does the project adversely affect the **capacity** of the floodplain?
30. ----- Do any roads adversely affect the capacity of the floodplain?
31. ----- Are structures with the potential for high flood damage, or confined animal shelters, located in the floodplain?
32. ----- Are existing or proposed utilities free from the threat of flood damage?
33. ----- Was TR-55 used to evaluate flood flows?
34. ----- Do flood flow velocities fall into a safe category?
35. ----- Has the 100-year flood line been included on the Plan?
36. ----- Are natural drainage channels protected and preserved except where approved by the commission?
37. ----- Are temporary control measures to prevent damaging runoff waters planned until permanent control measures are installed?
38. ----- Does the plan provide for runoff water removal without damage to people, property or the environment?
39. ----- Does the plan indicate that water coming from the subdivision has no more pollutants or sediment in it than it would have if the subdivision were not present?
40. ----- Does the plan show that water coming from the subdivision will not cause any greater erosion off the developed area than occurred before the development?
41. ----- Do drainage systems have the capacity to handle the entire drainage basin?
42. ----- Does the plan recognize that larger and more frequent flows may cause natural watercourses to start to degrade?

43. ----- Have diversions, debris basins, retaining walls, terraces, berms, and vegetation been planned to help reduce sediment and runoff?
44. ----- If large natural channels have been reshaped or graded, have measures been planned to slow water velocities and protect the banks?
45. ----- Does the Plan tell where, what, and how the natural vegetation will be removed?
46. ----- Do road alignments appear to be compatible with the natural contours?
47. ----- Does the plan show that unique or valuable esthetic resources will be protected?
48. ----- Will there be any water ponding due to road construction?
49. ----- If roads are planned to collect or dispose of runoff, are they adequately designed?
50. ----- Do road drains discharge onto a safe outlet?
51. ----- Are road culverts long enough, and properly located and sized?
52. ----- Are road culvert inlets and outlets adequately protected?
53. ----- Based on the soils, are road grades flat enough to prevent erosion?
54. ----- Are borrow areas or drainage features designed to prevent erosion or sediment deposition?
55. ----- Are culvert inlets and outlets properly protected from erosion and sedimentation?
56. ----- Are plans adequate for any critical area treatment or special plantings that are needed?
57. ----- If temporary soil stabilization is needed, is it reflected in the plan?
58. ----- Is adequate soil stabilization planned on permanent slopes?
59. ----- Are the plant species scheduled for planting adapted to the local soils and climate?

- 60. ----- Do planting dates shown in the plan agree with the Tech Guide?
- 61. ----- Do seeding rates shown in the plan meet the minimums in the Tech Guide?
- 62. ----- Are the seeding or planting methods planned compatible with the Tech Guide?
- 63. ----- Has existing vegetation been left undisturbed whenever possible?
- 64. ----- Does the plan call for the installation, or connections for, adequate street lighting within the development?
- 65. ----- Has the subdivision plat been approved for liscensed public utility installation by the county commission?

DISCLOSURE STATEMENT

1. ----- Name of the subdivision.
2. ----- Name and address of the developer and the name and address of the person in charge of sales or leasing.
3. ----- Size of the subdivision, present and anticipated.
4. ----- Size of the largest and smallest lots.
5. ----- Distance to the nearest town and the route over which the distance was computed.
6. ----- Name and address of the person who is recorded as having legal title to the property offered.
7. ----- Statement of the condition of title, including any encumbrances.
8. ----- Statement of all restrictions or reservations of record which subject the subdivided land to any unusual conditions affecting its use or occupancy.
9. ----- Name and address of escrow agent, if any.
10. ----- Description of the means of liquid waste disposal for the subdivision.
11. ----- Statement as to availability and cost of public utilities.
12. ----- Statement describing the quality and quantity of water available for the proposed use.
13. ----- Description of the means of solid waste disposal for the subdivision.
14. ----- Description of the means of water delivery, if any, and status of ownership of water within the subdivision.
15. ----- The average depth to water within the subdivision if domestic water is only available from wells.
16. ----- Description of the access to the subdivision.

17. ----- Statement disclosing if the roads within the subdivision have been accepted by the county for maintenance.
18. ----- Description of the developer's provisions for terrain management.
19. ----- Description of all recreational facilities, actual and proposed, in the subdivision.
20. ----- Statement of any activities or conditions adjacent to, or nearby, which would subject the development to any unusual conditions affecting its use.
21. ----- Layout showing the location of the proposed subdivision, adjoining subdivisions, roads, bridges, public lands, commercial and industrial developments and terrain.
22. ----- Statement as to availability of the following:
 - Fire protection
 - Police protection
 - Hospital facilities
 - Shopping facilities
 - Public transportation
 - Solid waste collection
 - Public schools - proximity of closest schools.
23. ----- Statement setting forth the projected completion date of any of the items mentioned above which are the developer's responsibility but are not yet completed.

FINAL REPORT COMMENTS

1. ----- Are the flood channels adequate?
2. ----- Are potential flood hazards discussed?
3. ----- Can flood waters move through the channels without being obstructed?
4. ----- Do wells or septic systems need floodproofing?
5. ----- Are capacities of storm drains adequate?
6. ----- Are channels stable within, and downstream from, the development?
7. ----- Are side inlets coming into waterways stable?
8. ----- Are sediment control measures during and after construction adequate to maintain water quality at a level equal to that before development started?
9. ----- Have you made projections of Pre and Post-development runoff?
10. ----- Have you clearly stated why a soil limitation makes the planned land use unsuitable?
11. ----- Have you included a disclaimer statement?



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